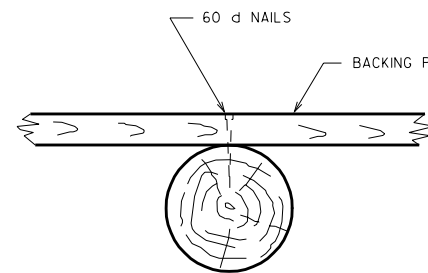
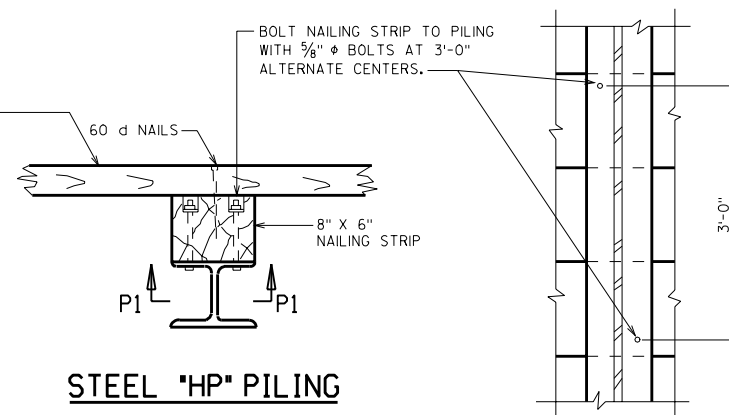


**CONCRETE  
CAST-IN-PLACE PILING**

REFER TO STANDARD 11.1 FOR SECTION THRU REINFORCED CAST-IN-PLACE PILING WHEN PILES ARE EXPOSED.

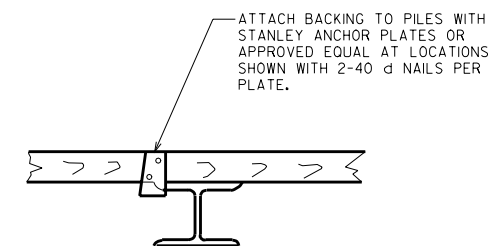


**TIMBER PILING**



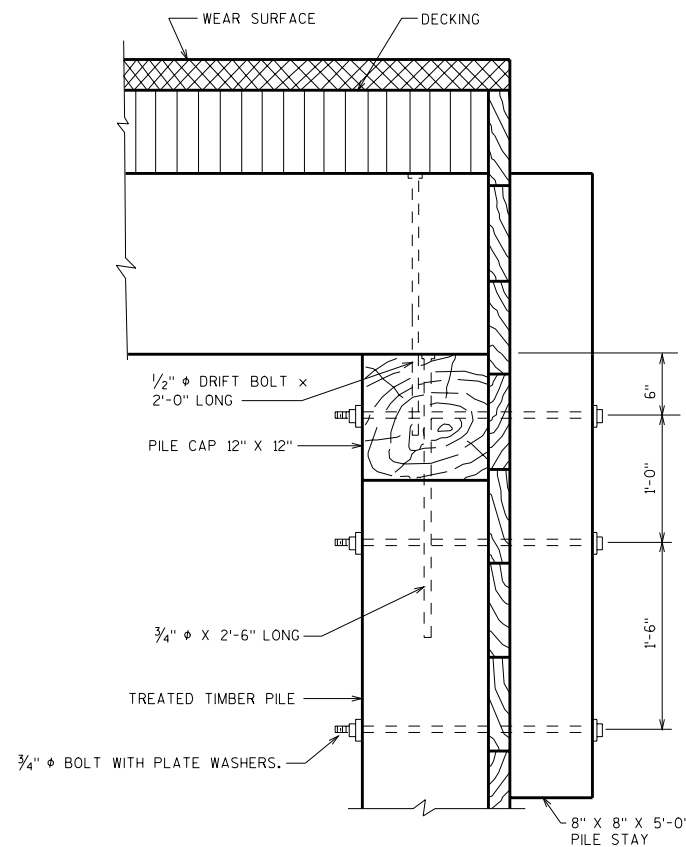
**STEEL 'HP' PILING**

**SECTION P1**

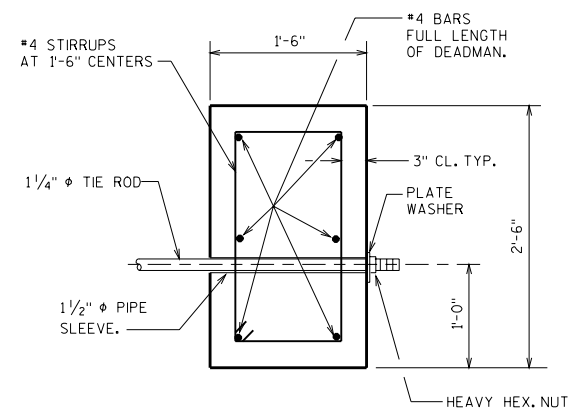


**STEEL 'HP' PILING  
(ALTERNATE ATTACHMENT)**

**BODY & WING PLANK CONNECTION DETAILS**



**PILE CAP DETAIL  
(TIMBER GIRDER)**



**SECTION THRU DEADMAN**

**TIMBER ABUTMENT  
DETAILS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION  
STRUCTURES DEVELOPMENT SECTION

APPROVED: *Stanley W. Woods*

DATE:  
1/99